

# SUSTAIN- ABILITY OVERVIEW

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# Sustainability Management System

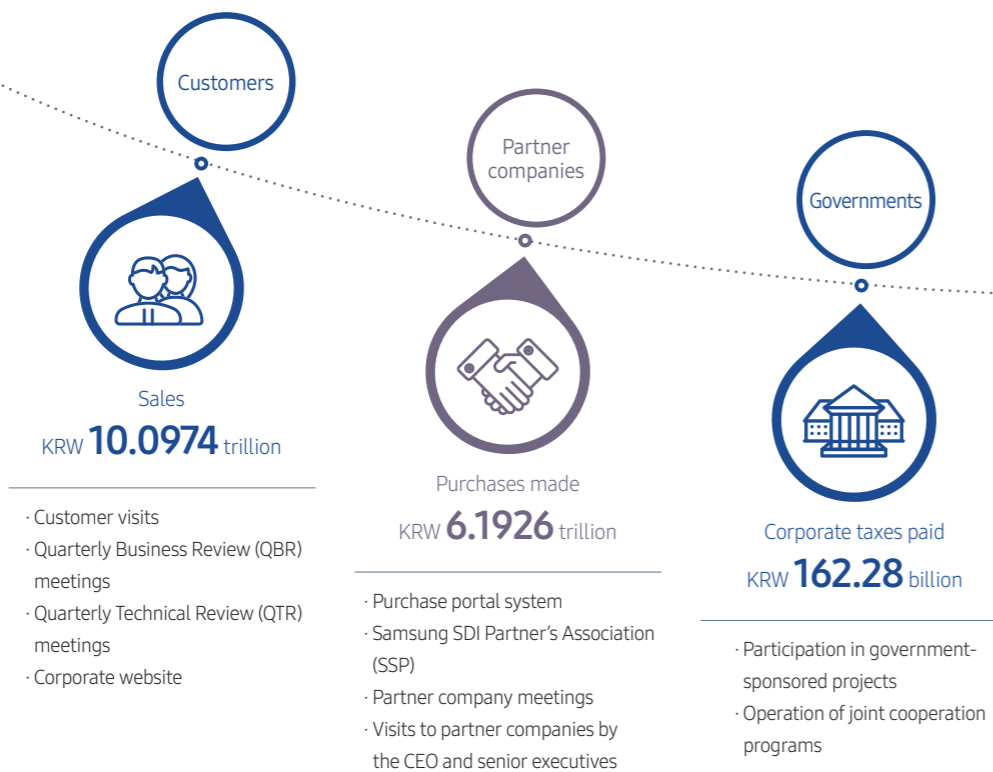
## Approach to Sustainability Management

Samsung SDI set its sustainability management vision of 'Sustainable Development Innovator' with an aim to become a company that is 'contributing to society through sustainable development based on strong leadership in the economic, social and environmental spheres'. On the basis of the Triple Bottom Line (TBL) that refers to economy, environment and society, we chose the three domains of 'Sustainable Growth', 'Win-Win Partnership', and 'Creation of Environmental Value' and their respective focus areas to pursue balanced development and growth for all stakeholders.

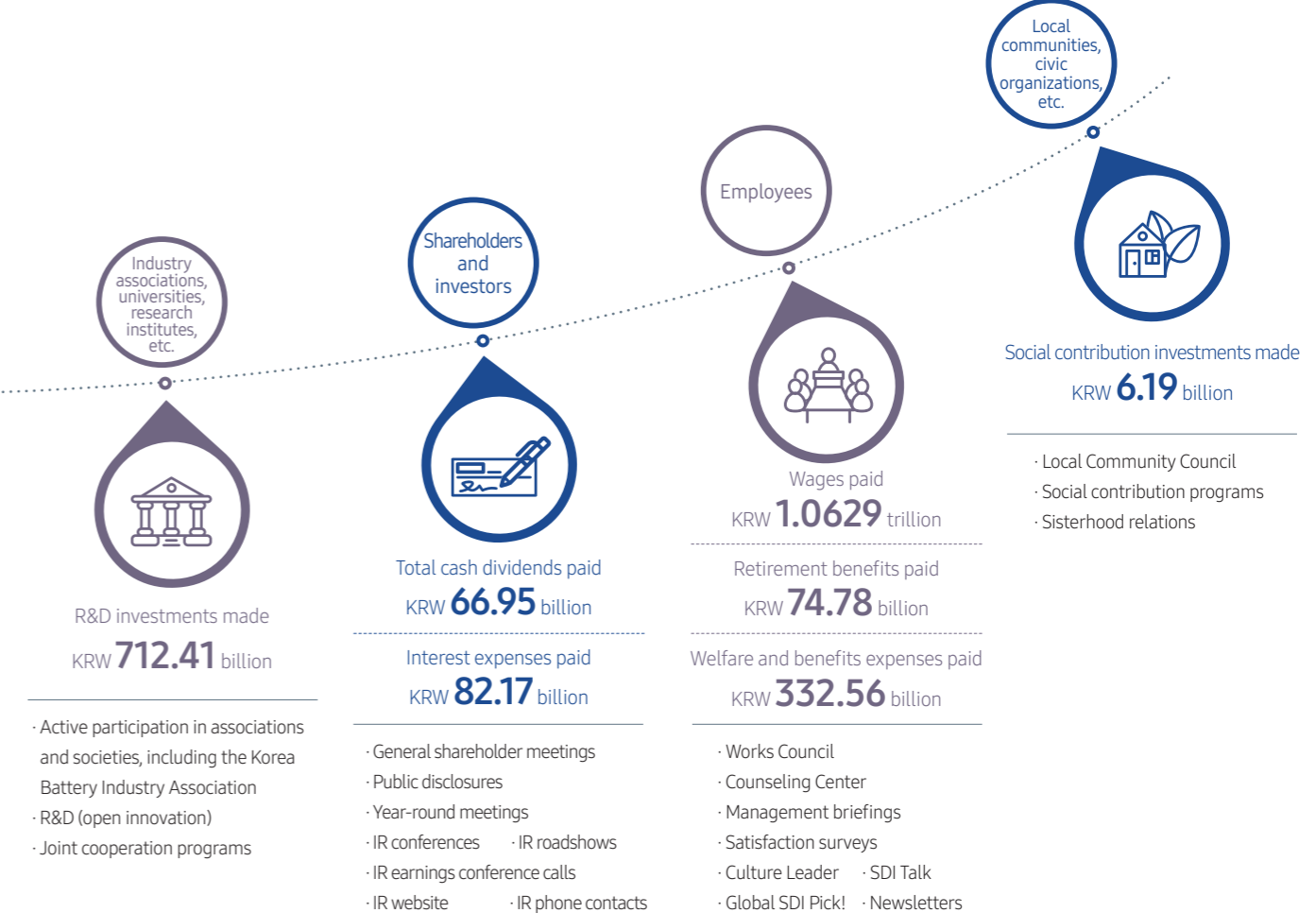
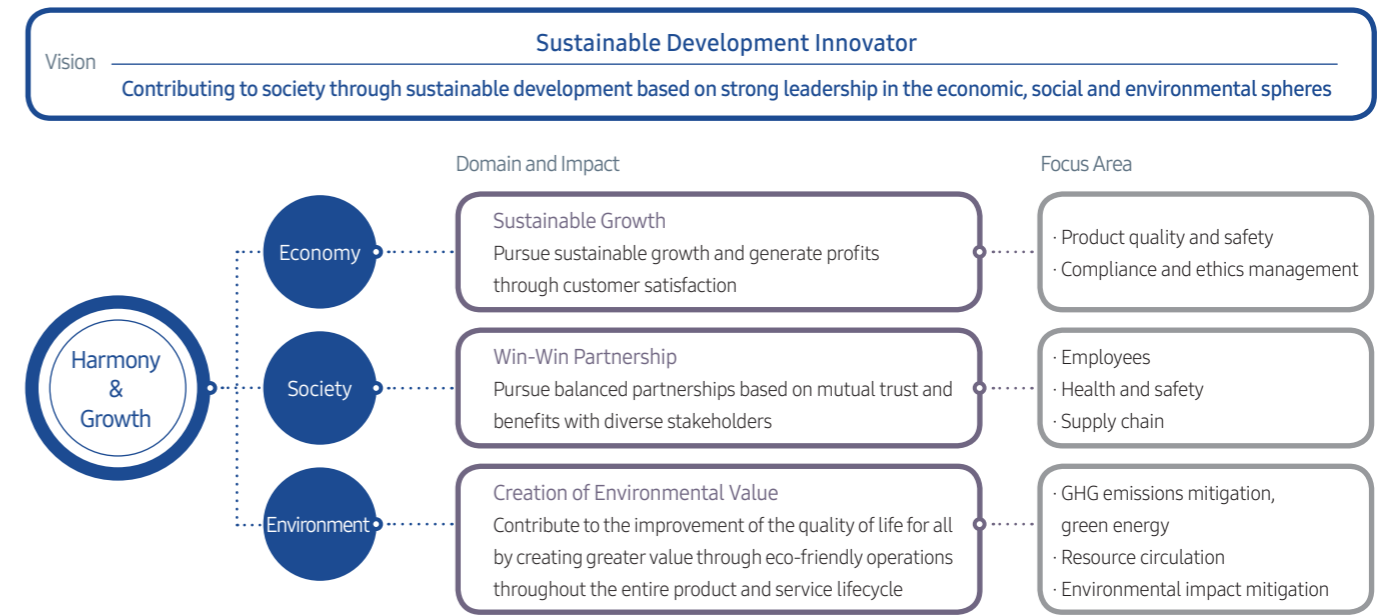
## Stakeholder Engagement

At Samsung SDI, stakeholders are defined as those who interact with the Company concerning economic, social and environmental issues that may arise in business conduct. We ensure continuous communication with these stakeholders to gather their feedback and reflect it into business operations to improve our sustainability as a company. Our major stakeholder groups include customers, partner companies, governments, industry associations-universities-research institutes, shareholders-investors, employees, and local communities-civic organizations.

## Stakeholder Communication and Value Distribution (on a consolidated basis)











## Sustainability Management Strategy



# Implementation of the UN SDGs

Samsung SDI fully endorses the Sustainable Development Goals (SDGs) suggested by the United Nations to promote the sustainable development of the international community, and takes wide-ranging actions accordingly based on its sustainability management implementation strategy.

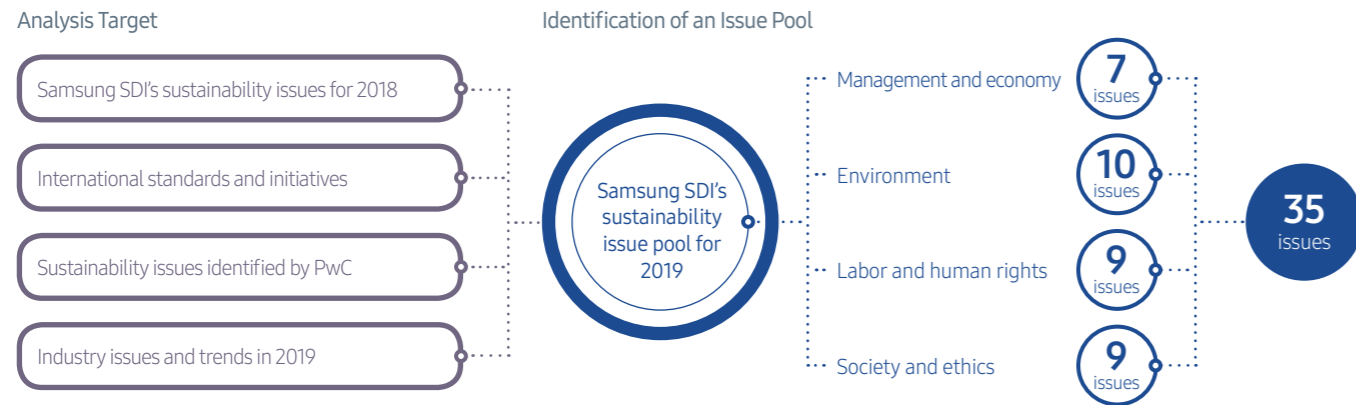
Goals	Target	Samsung SDI's Contribution	Reporting Page
 4 QUALITY EDUCATION	4.1	- We provide education to adolescents through our flagship social contribution programs – Green Planet Environment School, Green Planet Dreaming School, and Green Planet Future Science School – to contribute to the change of future generations.	76-77
	4.4	- We operate learning courses to help employees strengthen their capacity in development, process, and equipment technology as well as training courses provided through industry-academia alignment and license acquisition support programs. - We operate quality training at domestic/overseas corporations to help employees' capacity building on product quality and safety.	73, 91
 5 GENDER EQUALITY	5.5	- We endeavor to increase the ratio of female managers, and appointed a female independent director in 2020 to provide women with leadership opportunity.	68, 90
	7.2	- We manufacture ESS batteries and supply them to the global market to contribute to the creation of a global clean energy industry ecosystem. - Our Korean corporations joined the Ministry of Trade, Industry and Energy's Green Pricing pilot project to introduce green energy, and our overseas corporations are currently reviewing green energy-related systems.	22-23, 45
 7 AFFORDABLE AND CLEAN ENERGY	7.3	- Our domestic/overseas corporations undertook energy consumption mitigation tasks to save a total of KRW 18.6 billion in 2019. - We take the Life Cycle Assessment (LCA) approach to reduce energy use throughout the entire product manufacturing cycle from R&D and raw material procurement to product use.	45, 46
	7.A	- We are jointly developing electric truck batteries in cooperation with a global car OEM, and have signed an agreement to develop electric motorcycle batteries and battery switching stations in order to facilitate accessibility to clean energy.	19, 21
	8.7	- We perform thorough monitoring and due diligence in procuring conflict minerals including cobalt and graphite that pose high risk of causing human rights and health & safety issues in order to prevent relevant risks from occurring. - We manage the impact our worksites have on human rights and labor issues in accordance with the checklist created on the basis of the Responsible Business Alliance (RBA) Code of Conduct in order to assess our worksites for their level of human rights and labor performance and to identify and manage factors that give rise to any adverse impact.	61-63, 72
 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	9.4	- We set a goal of reducing our GHG emissions by 30% or more from BAU levels by 2020. - Our domestic and overseas corporations implemented energy use reduction tasks to save a total of KRW 18.6 billion in 2019.	44, 45
	9.5	- We launched campus recruitment events at domestic and overseas universities to continuously secure R&D workforce. - The percentage of our R&D investments against sales rose by 0.5% from 2018 to 7.1% in 2019.	27, 91

Goals	Target	Samsung SDI's Contribution	Reporting Page
 11 SUSTAINABLE CITIES AND COMMUNITIES	11.6	- We endeavor to increase recycling to reduce waste generated from the product manufacturing process, and recover and recycle end-of-life batteries and scraps from the production process to help lower waste discharge. - We install and manage adequate control equipment to treat air pollutants, and adopt internal standards that are more stringent than legally-applicable regulations in measuring pollutants and managing their trajectory.	47, 82-83
	12.2	- We performed Reasonable Country of Origin Inquiries (RCOI) and third-party audits on minerals, including cobalt and conflict minerals, that are consumed for battery production.	61-63
 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	12.4	- We conduct pre-purchase reviews and assessments on any and all chemicals that enter our worksites through our environmental safety system (G-EHS). - Our worksites comply with internal standards that are stricter than the legal regulations imposed by the government for pollutant management in order to mitigate environmental impact in the entire business conduct and throughout the production and consumption process.	81, 82
	12.5	- We establish and operate a resource recovery process to retrieve end-of-life batteries and recycle them as raw materials, and closely cooperate with professional recycling service providers to improve resource recycling. - We outsource waste management to professional waste disposal businesses to ensure all waste that we generate is processed in conformity with applicable environmental regulations, and strive to increase the recycling of waste.	47, 83
	12.6	- We publish sustainability reports every year, and use them as a channel to faithfully report on our sustainable consumption and production. - We manufacture products in accordance with our internal quality and safety policy, and ensure periodical reporting on this.	50-55
 13 CLIMATE ACTION	13.3	- We sell batteries equipped on eco-friendly vehicles and Energy Storage Systems (ESS) to indirectly contribute to mitigating climate change in the product use phase. - We continuously take action to reduce GHG emissions generated from the manufacturing process. - We operate Green Planet Environment School, our green and energy educational program for children and adolescents, to help them learn about the importance of proper energy use.	20-23, 44, 76-77
	16.2	- We manage the impact our worksites have on human rights and labor issues in accordance with the checklist created on the basis of the Responsible Business Alliance (RBA) Code of Conduct in order to assess our worksites for their level of human rights and labor performance and to identify and manage factors that give rise to any adverse impact.	72
 16 PEACE, JUSTICE AND STRONG INSTITUTIONS	16.5	- We operate compliance programs to strictly prevent any possible occurrence of corruption and bribe-taking, and perform annual corruption risk assessments on our worksites. - In 2020, seven Samsung affiliates, including Samsung SDI, have established Samsung Compliance Committee to keep a close watch on compliance management.	70-71

# Identification of Material Sustainability Issues and Reporting Topics

## Issue Identification

To conduct annual sustainability management materiality analyses, Samsung SDI comprehensively analyzes the sustainability issues addressed by international standards and initiatives as well as internal/external business agendas and trends for the year in order to update its pool of sustainability issues. In 2019, a pool of 35 issues was created as a result of the materiality analysis process, and this served to identify material issues and plan the preparation of this Report.



## Materiality Analysis

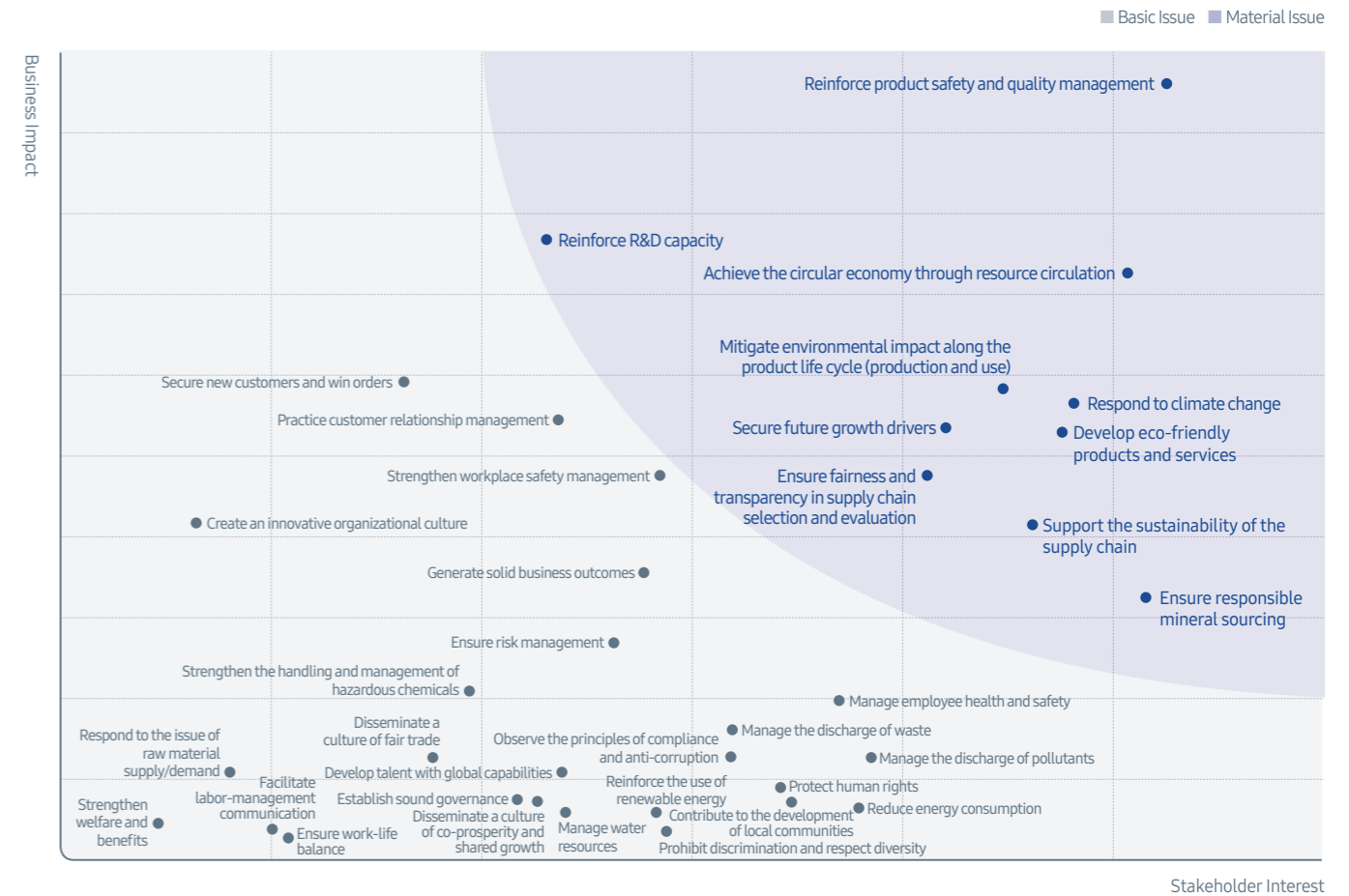
The materiality test was performed to identify sustainability-related issues that have major impact on Samsung SDI's business operations and garner high interest among stakeholders.

## Materiality Assessment Process



## Materiality Matrix

In 2019, a total of 10 issues were identified as Samsung SDI's material issues.



## Material Issue Reporting

Ranking	Material Issue	Reporting Topic	Reporting Page	GRI Standards Disclosure
1	Reinforce product safety and quality management	Material Issue > 2. Product Safety	50-55	416-1~2
2	Achieve the circular economy through resource circulation	Material Issue > 1. Climate Change	42-49	301-2
3	Respond to climate change	Material Issue > 1. Climate Change	42-49	201-2, 305-1~5
4	Mitigate environmental impact along the product life cycle (production and use)	Material Issue > 1. Climate Change	42-49	Non-GRI
5	Develop eco-friendly products and services	Business Overview > R&D	26-27	Non-GRI
6	Reinforce R&D capacity	Business Overview > R&D	26-27	Non-GRI
7	Secure future growth drivers	Business Overview > Business Overview and Growth Strategy	18-25	Non-GRI
8	Support the sustainability of the supply chain	Material Issue > 3. Sustainable Supply Chain	56-63	Non-GRI
9	Ensure fairness and transparency in supply chain selection and evaluation	Material Issue > 3. Sustainable Supply Chain	56-63	308-1~2, 414-1~2
10	Ensure responsible mineral sourcing	Material Issue > 3. Sustainable Supply Chain	56-63	308-1~2, 414-1~2

# Total Impact Measurement & Management (TIMM)

## Impact Measurement Background and Methodology

Businesses directly generate or induce economic, social and environmental effects in their business conduct, and this exerts direct and indirect impacts on stakeholders surrounding these businesses for their quality of life and sustainability. As a member of society who grows hand-in-hand with stakeholders, Samsung SDI strives to broaden this definition of impacts by considering even those impacts generated by way of its business decision-making and business operation. As such, we chose PwC's Total Impact Measurement and Management (TIMM) methodology to assess the impacts generated from our financial and non-financial performance in the course of 2019.

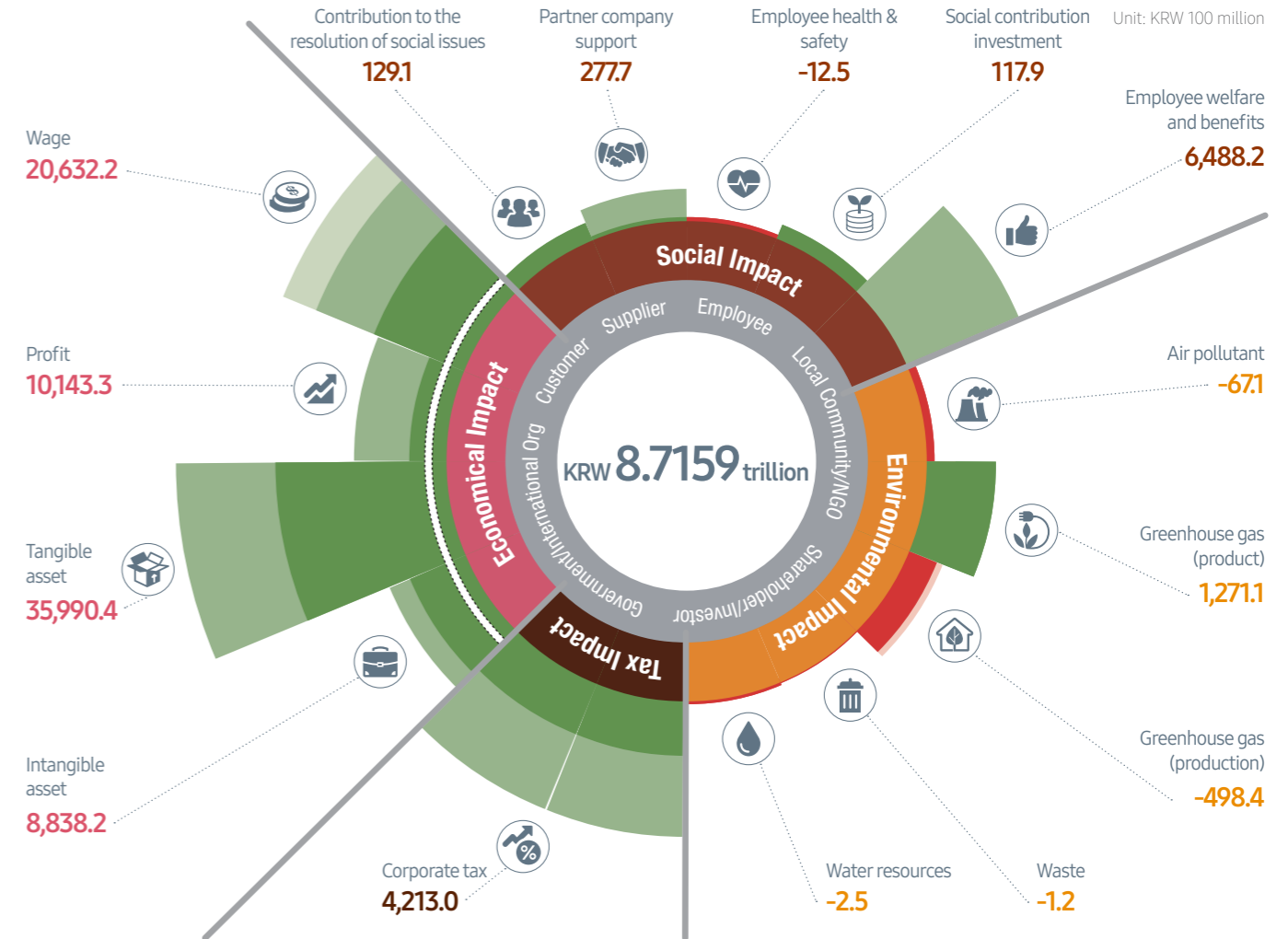
## Samsung SDI Impact Measurement Aspects

Under this methodology, 'impacts' refer to how much a company or society changes either positively or negatively as a result of outcomes (change in company or society vis-à-vis activities). The target of impact assessments can be the outcomes of a single program when such assessments are made in specific areas, such as company-wide business outcomes or social-giving activities. The data used to assess impacts includes the public disclosures made by the Company in conformity with applicable laws and regulations, statistics from government agencies and international organizations, and outcomes from relevant domestic/international research papers. To improve the reliability and objectivity of the assessment process and its results, sources of evidence and reference data considered significant are separately annotated. In 2019, Samsung SDI's impacts were measured on a total of 15 factors.

<b>Economical Impact</b> Current or future impact on GDP (Gross Domestic Product)	<ul style="list-style-type: none"> <li>Wage: Sum of employee wages and retirement benefits, estimated wages of partner employees, and estimated per-capita consumption expenditures of employee family members</li> <li>Profit: Net income (profits generated from the current period)</li> <li>Tangible asset: Sum of depreciation of tangible assets and invested properties (contribute to the generation of future profits)</li> <li>Intangible asset: Sum of separately-acquired intangible assets and R&amp;D expenditures (contribute to the generation of future profits)</li> </ul>
<b>Tax Impact</b> Impact on public finance made through tax payments	<ul style="list-style-type: none"> <li>Corporate tax: Sum of corporate tax payments estimated based on the Company's corporate taxes paid and the sales of partner companies who supply raw materials consumed to manufacture Samsung SDI's products</li> </ul>
<b>Environmental Impact</b> Impact on the natural environment	<ul style="list-style-type: none"> <li>Air pollutant: Social costs caused by the emission of SOx, NOx, and dust</li> <li>Greenhouse gas (product): Social value generated from the sale of EV batteries</li> <li>Greenhouse gas (production): Social costs caused from GHG emissions generated from the process</li> <li>Waste: Social costs caused by the discharge of waste</li> <li>Water resources: Social costs caused by the use of water resources</li> </ul>
<b>Social Impact</b> Impact on members of society leading a better life	<ul style="list-style-type: none"> <li>Contribution to the resolution of social issues                         <ul style="list-style-type: none"> <li>Increased educational opportunity for children and adolescents: Impacts on the beneficiaries of Green Planet Environment School, Green Planet Dreaming School and Green Planet Future Science School from their access to opportunity to explore career paths and learn about Samsung SDI's business</li> <li>Support for the medically-underserved: Impact on beneficiaries calculated in consideration of the Disability Weights (DW) improved through the free-of-charge vision recovery surgeries performed, the life expectancy of beneficiaries (difference between country-specific average life expectancy and the average life expectancy of beneficiaries), and Values of a Statistical Life (VSL) that reflects country-specific income elasticity</li> </ul> </li> <li>Support for share growth: Impact from the lower interest rates offered through the win-win growth funds as well as from the credit assistance for partner companies in paying molding fees</li> <li>Health and safety: Losses from the health and safety incidents involving employees</li> <li>Social contribution investment: Impact from production activities, added values, and increased employment on the part of beneficiaries</li> <li>Employee welfare and benefits: Social value created by contributing to improving the quality of life for employees</li> </ul>

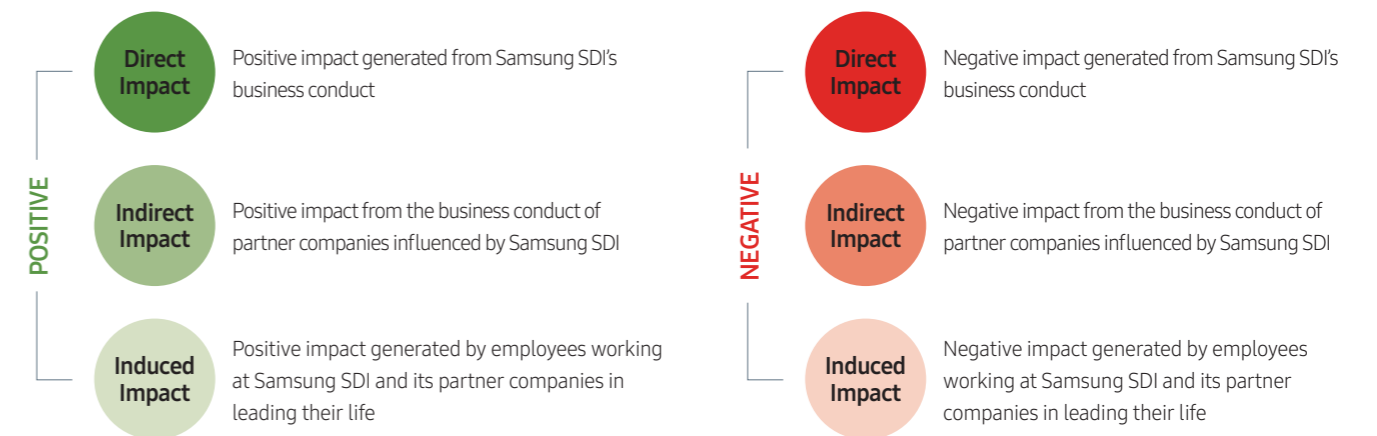
\* The measurement of social value was performed based on the performance data managed by the Company in accordance with the reasonable assumptions made by leveraging official statistics from governmental agencies and international organizations as well as a range of current research outcomes, and the currency value of the concerned year is subject to change later on.

## Samsung SDI Impact Measurement Outcomes



\* Reference data: Samsung SDI business report (for the 50<sup>th</sup> period), Global Burden Disease (GBD) data from the Institute for Health Metrics and Evaluation (IHME), the inter-industry table from the Bank of Korea (2015), VSL data from the Korea Environment Institute, national statistics from Statistics Korea, statistics from the World Bank, etc.

## Scope and Nature



# Total Impact Measurement & Management (TIMM)

## Identification of Impact Management Plans and Reporting

Samsung SDI identified its impact on stakeholders for each of the measurement factors in order to expand positive impacts while improving on negative impacts, and formulated management plans on the basis of its value chain.

Management needs		Economics				Tax	
Samsung SDI's category-specific factor		Samsung SDI plays a pivotal role in the nation's development and economy in its capacity both as a company that seeks profits and as a member of society. Samsung SDI primarily contributes to economic growth by creating added value and inducing employment in its product and service manufacturing process, and these business activities in turn impact the supply chain that supports such activities as well as the economic performance of customers who receive the Company's services.				Tax payment is related to a company's business continuity as well as its reputation management. While the focus was previously placed on the faithful fulfillment of tax obligations for compliance purposes, today's society is increasingly interested in taxation that is sufficient and convincing for all stakeholders. Such interest and requirement from the stakeholder side imply 'social acceptability' and companies need to be aware of relevant potential impact.	
TIMM factor		Wage, Profit, Tangible asset, Intangible asset				Corporate tax	
Impact on stakeholders	Customers			High quality and reasonable pricing, improved safety and convenience in product use			
	Partner companies			Sales expansion through delivery volume increases and unit price guarantee, opportunity to explore new growth drivers			
	Governments				Contribution to national fiscal soundness and the improved quality of life for the public		
	Industry associations, universities and research institutes						
	Local communities and civic organizations						
	Employees	Contribution to income growth and the improved quality of life					
	Shareholders and investors		Increases in interest income and dividend income				
Impact measurement results		KRW 2,063.22 billion	KRW 1,014.33 billion	KRW 3,599.04 billion	KRW 883.82 billion	KRW 412.3 billion	
		Economic Impact: KRW 7,560.42 billion				Tax Impact: KRW 421.30 billion	
		Total Impact					
Management plans for maximum impact	Value chain	R&D			Diversify new applications in line with increasing needs for eco-friendliness, and secure battery safety performance		
		Purchasing		Select and maintain outstanding partner companies			
		Manufacturing		Improve equipment efficiency & safety, manage partners' quality performance and expand relevant support			
		Logistics					
		Sales		Develop a global sales network, secure new customers and increase orders granted, explore new markets			
		Service		Facilitate customer communication and manage tailored customer value			
		Marketing		Analyze market trends, Analyze customer and technology trends			
		Business administration	Ensure transparent performance appraisal and compensation	Ensure clarity in profit/loss management	Ensure transparent accounting in acquisition, management, and disposal		Manage tax risks and fulfill tax-paying obligations
Pool of sustainability issues for 2019		- Reinforce welfare and benefits	- Generate solid business outcomes - Secure new customers and win orders	- Secure future growth drivers	- Reinforce R&D capacity	- Observe the principles of compliance and anti-corruption	
	Reporting page	91	86-87	86	26-27, 86, 91	87, 88	

These management plans will be fully reflected in our future sustainability management, and our performance for the year 2019 is presented in detail through this Report.

Environment					Society				
Air pollutant (NOx, SOx)	GHG (product)	GHG (production)	Waste	Water resources	Contribution to the resolution of social issues (education for children and adolescents, support for the medically-underprivileged)	Partner company support	Employee health & safety	Social contribution investment	Employee welfare and benefits
Expansion of the green market, opportunity to explore new growth drivers							Financial stability and strengthened technology competitiveness	Reduction in employee efficiency and health	
Development of new environmental policies and regulations		Development of new environmental policies and regulations							
Contribution to air pollution and negative ecosystem impact	Contribution to climate change - global warming, floods, droughts, and rising sea levels	Contribution to soil pollution and negative ecosystem impact	Contribution to community water resources depletion		Increased learning opportunity for children and teens and support for the medically-underprivileged		Reduction in employee work efficiency and health	Development of local communities and protection of the vulnerable	Improved quality of life for employees
- KRW 6.71 billion	KRW 127.11 billion	- KRW 49.84 billion	- KRW 120 million	- KRW 250 million	KRW 12.91 billion	KRW 27.77 billion	- KRW 1.25 billion	KRW 11.79 billion	KRW 648.82 billion
Environmental Impact: KRW 70.19 billion					Social Impact: KRW 700.04 billion				
KRW 8.7519 trillion									
Improve on equipment and deploy discharge control equipment	Strengthen product eco-friendliness and develop eco-friendly products	Develop measures to source eco-friendly raw materials	Improve equipment and adoption of renewable energy generation equipment	Increase waste recycling and strengthen scrap retrieval	Increase water recycling and minimize effluent discharge	Strengthen support for partner companies' sustainability	Strengthen the operation of the equipment safety certification process		
		Develop and implement end-of-life product recovery							
- Manage the discharge of pollutants	- Develop eco-friendly products and services - Mitigate environmental impact along the product life cycle (production and use) - Respond to climate change - Reduce energy consumption - Reinforce the use of renewable energy	- Mitigate environmental impact along the product life cycle (production and use) - Respond to climate change - Reduce energy consumption - Reinforce the use of renewable energy	- Achieve the circular economy through resource circulation - Manage the discharge of waste	- Manage water resources - Manage the discharge of pollutants	- Contribute to the development of local communities	- Support the sustainability of the supply chain of co-prosperity and shared growth	- Strengthen the handling and management of hazardous chemicals - Strengthen workplace safety management - Manage employee health and safety	- Contribute to the development of local communities	- Strengthen welfare and benefits
82, 89	46	44-45, 88	83, 89	82, 89	76-77, 93	59-60, 92-93	78-81, 92	93	75, 94